

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
13 January 2005 (13.01.2005)

PCT

(10) International Publication Number  
**WO 2005/003851 A1**

(51) International Patent Classification<sup>7</sup>: **G02F 1/13357**

Nexso Building, 830 Osan-Li, DongTan-Myoun, Hwasung-Kun, 445-813 KyoungKi-Do (KR).

(21) International Application Number:

PCT/KR2003/002102

(74) Agent: KIM, Chong-Hwa; 2F, Shindo Bldg., 823-10, Yeoksam-Dong, Kangnam-Ku, 135-080 Seoul (KR).

(22) International Filing Date: 13 October 2003 (13.10.2003)

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10-2003-0044316 1 July 2003 (01.07.2003) KR

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

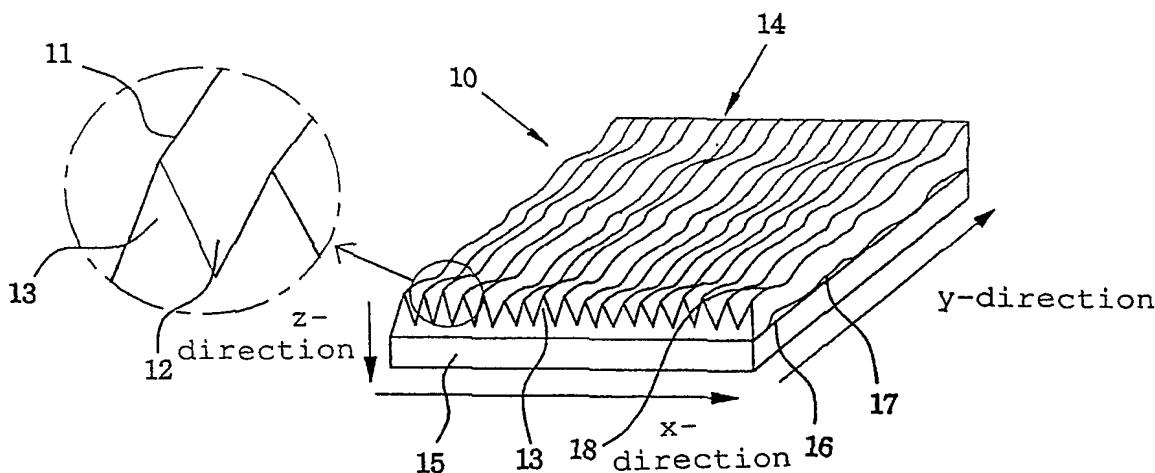
(71) Applicant (*for all designated States except US*): LGS CORPORATION [KR/KR]; 92-3, Dangjung-Dong, Kunpo-Si, 435-030 Kyungki-Do (KR).

**Published:**

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PRISM SHEET OF BACK LIGHT UNIT FOR LCD



(57) Abstract: Disclosed is a prism sheet structure that can control optical coupling between contact surfaces of two prism sheets in a backlight unit. The prism sheet includes: a structural surface (14) having non-planar peaks (11) with maximum height and minimum height along a length direction thereof; and a curved layer (17) having the same cycle as a cycle of height variation of the peak. The curved layer is formed at a boundary surface (16) between the structural surface (14) and the flat surface to maintain the right-angled isosceles triangular prisms formed due to a difference between the highest point and the lowest point of each of the peaks to have a predetermined size, so that distance between the valleys (12) is uniform along the length direction. Although shapes of prisms are identical, the cycle of the peak height variation allows the moiré patterns to be suppressed or removed.

WO 2005/003851 A1